Bruhat Bangalore Mahanagara Palike
Excecutive Engineer Yelahanka Project Division

Estimate Cost Rs. **80000000.00**

Name of work: Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
	Drilling and Providing Pump and Motor								
1	Geophysical investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc (P.NO-47, I.NO-9.4, PRED 12-13 SR)	Each BW							
			69				**69**	1938.46	**133754.00**
	Basic Rate	1882.00							
	3% area weightage	56.46							
	Total	**1938.46**							
2	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) (P.NO-47, I.NO-9.1, PRED 12-13 SR)	Rmtr							
	0 to 50 m		69	50.00			**3450.00**	315.18	**1087371.00**
	50 to 100 m		69	50.00			**3450.00**	412.00	**1421400.00**
	100 to 150 m		69	50.00			**3450.00**	458.35	**1581308.00**
	150 to 200 m		69	50.00			**3450.00**	484.10	**1670145.00**
	200 to 250 m		69	50.00			**3450.00**	560.32	**1933104.00**
	250 to 300 m		69	50.00			**3450.00**	600.49	**2071691.00**
	300 to 350 m		69	50.00			**3450.00**	622.00	**2145900.00**
	350 to above		69	50.00			**3450.00**	677.74	**2338203.00**
3	Supplying of ISI Mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick black electric resistance continous welded midle steel tube material confirming to IS 1387/!993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) (P.NO-III, I.NO-84, PRED 12-13 SR)	Rmtr							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
			69	60.00			**4140.00**	1364.75	**5650065.00**
	Basic Rate	1325.00							
	3% area weightage	39.75							
	Total	**1364.75**							
4	Providing and fixing 250mm dia PVC pipe and as per specification and directions. (BWSSB SR 18-19, P.No.133 sl.no.1.11.)	Rmtr							
			69	10.00			**690.00**	1393.59	**961577.00**
	Basic Rate	1353.00							
	3% area weightage	40.59							
	Total	**1393.59**							
5	175 mm dia M.S. Casing cap (P.NO-III, I.NO-85, PRED 12-13 SR)	Each							
			69				**69**	103.00	**7107.00**
	Basic Rate	100.00							
	3% area weightage	3.00							
	Total	**103.00**							
6	M.S. Casing pipe collars 'C' Class (P.NO-III, I.NO-86, PRED 12-13 SR)	Each	69	10.00			**690**	154.50	**106605.00**
	Basic Rate	150.00							
	3% area weightage	4.50							
	Total	**154.50**							
7	Fabricating supplying and mounting MS box of 16 SWG suitable for floor / wall mounting, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enamelled metal paint etc,. complete box of 21600 sq cm P No. 49 No 6.4 KPWD Electrical SR 14-15 16 swg	Sqm							
			69	1100.00	20.00		**1518000.00**	0.33	**500940.00**
	Basic Rate	0.33							
8	Labour charges for erection of new /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) (P.No - 144, I.No -28, BWSSB SR	Per length							
			69	50.00			**3450.00**	92.00	**317400.00**
	Basic Rate	92.00							
9	Supplying and fixing of Porcelain fuse channel with cut out on existing wooden / panel using necessary nuts, bolts and washer etc., complete.... **P No. 45 No 6.7.3 KPWD Electrical SR 14-15**	No.							
	63 Amps		69	3.00			**207.00**		
							207.00	234.00	**48438.00**
10	Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable (confirming to IS 1554) KPWD Electrical SR 14-15 p no 55 i7.4.4	Mtr							
			69	35.00			**2415.00**	140.40	**339066.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
11	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces KPWD Electrical SR 14-15 p no 61 7.9	Mtr							
			69	35.00			**2415.00**	117.00	**282555.00**
12	Supplying and fixing Class-A GI Pipe on pole/ wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mmKPWD Electrical SR 14-15 p no 62 7.12.1	Mtr							
			69	2.00			**138.00**	294.58	**40652.00**
	Basic Rate	286.00							
	3% area weightage	8.58							
	Total	294.58							
13	Supplying and fixing wiring earth electrode for grounding conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit,/ the pit should be filled with equal proportion of salt and charocal 150 mm alround the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc,. the pipe shall have 16 through holes of 122mm dia ,KPWD Electrical SR 14-15 p no 55 7.2	No's							
			69				**69.00**	4317.00	**297873.00**
14	Supply and fixing LT cast iron pot heads suitable for 1.1 KV class 16 sqmmUG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc,KPWD Electrical SR 14-15 p no 62 7.13.2	No's							
			69				**69.00**	280.00	**19320.00**
	Basic Rate	264.00							
	3% area weightage	7.92							
	Total	271.92							
15	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches ,KPWD Electrical SR 14-15 p no 44 i no	No's							
			69				**69.00**	302.00	**20838.00**
16	Cleaning of bore well inciuding yield tetsting of borewell either using slow or fast rig for not more than 2 hours at the final depth with air compressor or suitable pump as per specification (PRED 12-13 SL NO.9.5 PAGE NO.49)	each	10				**10.00**	10128.00	**101280.00**
17	Borewell Clamp Set (PWD SR 2018-19, Page No. XLVII, Sl nO. 17)	Set	69				**69.00**	1800.00	**124200.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
18	Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 17.50 HP 30 stage (P.NO-XXXXIII, I.NO-34, PWD SR 18-19)	No							
	17.5HP 30 Stage 10 extra motor		51				**51**	72126.00	**3678426.00**
	20 HP 40 Stage		30				**30**	90595.00	**2717850.00**
19	Providing, laying & jointing GI pipes confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe B Class (SR 18-19 PWD, P.No.XLVII Sl.no. 1	Rmtr							
	for extra bore		10	335.00			3350		
			69	335.00			**23115.00**		
	Basic Rate	415.00					**26465.00**	415.00	**10982975.00**
20	Supply and fixing Heavy Collar for GI Pipes 50MM (Page No. XLVII, Sl NO.2, PWD SR-2018-19	No's	69	56.00			**3864.00**	180.00	**695520.00**
21	Supplying of submersible pump cable 1X3X6..0 Sq.mm (Page No. XLVII, Sl NO. 8, PWD SR-2018-19	Mtr							
			10	700.00			**7000.00**		
			69	700.00			**48300.00**		
							55300.00	144.00	**7963200.00**

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
22	Supplying & delivery at site brand new / Essen / Lotus sunsines/Adarsh/ Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door , canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR) Page No. XLVII, Sl NO. 13, PWD SR 2018-19	No.							
			5				**5.00**		
			69				**69.00**		
							74.00	21000.00	**1554000.00**
23	Supplying & delivery of brand 50mm Gate Valve. (PWD SR 18-19, P.NO.XLVII Sl.no, 15	No's							
			69				**69.00**	1800.00	**124200.00**
24	Supplying & delivery of brand 50mm Non Return Valve. (PWD SR 18-19, P.NO.XLVII Sl.no, 16	No's							
			69				**69.00**	1800.00	**124200.00**
25	Supplying and fixing MCB (P.NO - XLVII, SL.NO - 19, PWD SR 18-19)	No's							
			69				**69.00**	900.00	**62100.00**
26	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications (P.NO - 6, I.NO - 2.3, PWD SR 18-19)	Cum							
			69	352.00	0.60	0.75	**10929.60**		
							10929.60	316.94	**3464027.00**
	Basic Rate	299.00							
	6% area weightage	17.94							
	Total	316.94							

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
27	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6 kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.NO - 94, I.NO - 13.73.2, PWD SR 18-19)	Mtr							
			69	352.00			**24288.00**		
							24288.00	394.32	**9577244.00**
	Basic Rate	372.00							
	6% area weightage	22.32							
	Total	394.32							
28	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.NO - 7, I.NO - 2.11, PWD SR 18-19)	Cum							
			69	352.00	0.60	0.75	**10929.60**		
							10929.60	128.26	**1401830.00**
	Basic Rate	121.00							
	6% area weightage	7.26							
	Total	128.26							
		Total of Other SR Items including GST Unit Rate							**22975312.00**
		Total of PWD SR 2018-19 Items							**42571052.00**
29	For 12% GST for Only PWD SR-2018-19 items								**5108526.00**
30	RO plant for 6 Nos Sub Estimate								**6656789.28**
31	Preparation of DPR (1%)								**800000.00**
32	PMC (1%)								**800000.00**
33	Miscellaneous and Bescom Deposits	L/S							**1088320.72**
								Total	**80000000.00**
									Rs. Eight Crore Only

CERTIFICATE :

1 The work spot has been inspected and the work is found necessary.

2 This estimate is prepared as per PWD SR 2018-19, PWD SR,Bangalore circle for year 2016-2017, PRED and BWSSB SR of Rural Engineering Department and Data Rates

3 The provisions were made in this estimate are necessary and adequate.

4 This works come under B.B.M.P. limits.

Assistant Engineer
Yelahanka Project Division

Assistant Executive Engineer
Yelahanka Project Division

Executive Engineer
Yelahanka Project Division

6/5/19

For RUDRAPRASAD CONSULTANTS

Partner./s.

Technical Sanction
Accorded For RS 800.00 lakhs
Head of A/C.....
CER NO : 20 D 07.05.19

TA CE (YNK)

Bruhat Bangalore Mahanagara Palike
Excecutive Engineer Yelahanka Project Division

Name of work: Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05

RO plant for 6 Nos Sub Estimate

Estimate cost, Rs **6,656,789.28**

SL NO	DESCRIPTION OF WORKS		NO		DIMENSIONS L	B	D	QUANTITY	UNIT	RATE	AMOUNT
	Buiding works										
1	*KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5*										
	Long Wall		2	6	4.57	1.00	1.00	54.84			
	short wall		2	6	3.66	1.00	1.00	43.92			
	Basic	283.00						98.76	cum	305.64	**30,185.01**
	add 8% Area wt	22.64									
	Total	305.64									
2	*KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No. 12/I.No. 4.2 of CSR 2015-16)*										
	PCC										
	Long Wall		2	6	4.57	1.00	0.15	8.23			
	short wall		2	6	3.66	1.00	0.15	6.59			
	Flooring concrete		1	6	4.57	3.66	0.15	15.05			
	Basic	5,046.00						29.87	cum	5,449.68	**162,768.75**
	add 8% Area wt	403.68									
	Total	5,449.68									
3	*KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in foundation cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.* ***KBS 5.1.13 P.NO.23.I.NO.5.6***										
	Bottom step										
	Long wall		2	6	4.57	0.90	0.60	29.61			
	Short wall		2	6	3.66	0.90	0.60	23.72			
	Basic	4,187.00						53.33	cum	4,521.96	**241,157.94**
	add 8% Area wt	334.96									
	Total	4,521.96									
4	*KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications.* ***KBS 5.1.13 P.NO.23.I.NO.5.9***										
	Second Step										
	Long wall		2	6	4.57	0.45	0.60	14.81			
	Short wall		2	6	3.66	0.45	0.60	11.86			
	Basic	5,005.00						26.67	cum	5,405.40	**144,136.07**
	add 8% Area wt	400.40									
	Total	5,405.40									-
5	*KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications.*										
	Filling upto plinth		1	6	4.57	3.66	0.30	30.12			
	Basic	76.00						30.12	cum	82.08	**2,471.92**
	add 8% Area wt	6.08									
	Total	82.08									

SL. NO	DESCRIPTION OF WORKS		NO		DIMENSIONS L	B	D	QUANTITY	UNIT	RATE	AMOUNT
6	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates :@0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation,plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2 **P.NO.12.I.NO.4.6**										
	Plinth Area		1	6	4.57	3.66	0.15	15.05			
	Basic	5,213.00						15.05	cum	5,630.04	**84,752.26**
	add 8% Area wt	417.04									
	Total	5,630.04									
7	KSRB 4-6.7 :Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2										
	All round lintel		2	6	16.46		0.30	59.26			
	Basic	256.00						59.26	cum	276.48	**16,383.10**
	add 8% Area wt	20.48									
	Total	276.48									
8	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundationfor footing ,pedestals ,retaining walls ,retern walls , walls (any thickness) including attached plasters, columns, pillars, posts, struts, buttresses, bed blocks, anchor blocks, and plinth etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications. Specification No. KBS 4.1, 4.6 P.NO.,13.I.NO.4.11										
	Plinth Beam										
	Long wall		2	6	4.57	0.45	0.15	3.70			
	Short wall		2	6	3.66	0.45	0.15	2.96			
	Lintel Beam		1	6	16.46	0.20	0.30	5.93			
	For Entrance Steps		1	6	2.40	0.30	0.15	0.65			
			1	6	2.40	0.30	0.15	0.65			
	Basic	6,011.00						13.89	cum	6,491.88	**90,158.58**
	add 8% Area weightage	480.88									
	Total	6,491.88									
9	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 TMT Bar Fe 500 P.NO.17.I.NO.4.46.2										
	concrete qty.vide item no 6				6.67			0.43			
					5.93			0.59			
	Basic	56,050.00						1.03	m	60,534.00	**62,099.98**
	add 8% Area wt	4,484.00									
	Total	60,534.00									
10	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4.P.NO.25.I.NO.5.27.2										
	Front Wall		1	6	4.57		3.36	92.13			
	Back Wall		1	6	4.57		2.80	76.78			
	Side Wall		2	6	3.66		3.08	135.27			
	Deductions										
	RS		1	6	2.40		3.00	-43.20			
	Windows		1	6	1.20		1.20	-8.64			
	Basic	937.00						252.34	sqm	1011.96	**255,358.80**
	add 8% Area wt	74.96									
	Total	1,011.96									

SL NO	DESCRIPTION OF WORKS		NO		DIMENSIONS L	B	D	QUANTITY	UNIT	RATE	AMOUNT
11	KSRB15-3.10 : Providing 20mm thick cement plaster in single coat with cement mortar 1:3, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.cement mortor 1:6, P.NO.113.I.NO.15.20										
	Internal plastering										
	Long Wall										
	Front Wall		1	6	4.57		3.36	92.13			
	Back Wall		1	6	4.57		2.80	76.78			
	Side Wall		2	6	3.66		3.08	135.27			
	External plastering										
	Front Wall		1	6	4.57		3.36	92.13			
	Back Wall		1	6	4.57		2.80	76.78			
	Side Wall		2	6	3.66		3.08	135.27			
	Deductions										
	RS		2	6	2.40		3.00	-86.40			
	Windows		2	6	1.20		1.20	-17.28			
	Basic	208.00						504.68	sqm	224.64	**113,371.67**
	add 8% Area wt	16.64									
	Total	224.64									
12	Fabricating, supplying and erecting M.S. TubularTruss of span upto 10m. The bottom and top member is provided with 50x50x6mm double equal angles, welded back to back and in between top and bottom line, in areas of mid section is provided with 50x50x6mm equal single angle for vertical and inclined members and at supporting ends 40x40x5mm single angle is provided. All the members are welded together with 6mm gusset plate as per Drawing. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate.The work includes cutting, straightening, placing in position of M.S angle and wleding wherever necessary, and applying one coat of red oxide primer coat to all themembers including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification. (Page No. 40 Item No. 7.29 of CSR 2015-16).										
	2.5 Kg/SFT Assumed			6			450.00	2,700.00			
	Basic	110.00						2700.00	sqm	118.80	**320,760.00**
	add 8% Area wt	8.80									
	Total	118.80									
13	PROVIDING TRAPEZOIDAL PROFILED SHEET Providing and installing of pre painted Galvolume iron Trapezoidal profiled sheet of approved make 1060 mm width (1000 mm cover width), 28-30 mm crest height with crest distance of 200 mm c/c with 2 ribs at the centre for stiffening. The total coated thickness (TCT) of the sheet will be 0.47 mm +/- 0.02 mm tolerance Zinc-Alu Alloy coating AZ150 gsm as per ASTM 1397/A755-550 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using self drilling/self tapping screws of 25 mm length, to be fixed over the existing purlins, rafters, channels and trusses.P.NO.291.I.NO.38.30										
			1.00	6.00	4.57	5.66		155.20			
	Basic	770.00						155.20	sqm	831.60	**129,061.99**
	add 8% Area wt	61.60									
	Total	831.60									
14	KSRB 7.17 : Providing, fabricating, assembling and fixing in position aluminium doors using following aluminium mat finish or glossy finish, outer frame plain section 101.6x44.45mm thickness 3.18mm, section weight 2.404 kg/m, door shutters vertical section 44.62x44.45mm thickness 3.18mm, section weight 1.505kg/m, top section 47.62x44.45mm thickness 3.00mm, section weight 1.426kg/m bottom section 114.3x44.45 thickness 3.18mm, section weight 2.646kg/m, door central section 49.91x44.45mm thickness 3.00mm, section weight 1.495 kg/m glazing clips 19x17.3x11mm thickness 0.9mm section weight 0.124kg/m; aluminium sections cut to length joint metred cornersgrinded, the shutters pivoted opening arrangement with heavy duty aluminium alloy automatic door closures floor mounted, providing and fixing standard approved accessories, such as aluminium handle for full width or length, tower bolts, lock, pivots: P.V.C. or rubber gasket with 5.5m. thick plain glass for top and bottom panel; aluminium sections treated for removal of any rust and prevention of further rust formation, and coated with greasy materials for non-adherance of mortars or any other sticky materials; the assembled frame fitted with the corner angles, strips and fitted with screws, rawl plugs or teakwood gutties to R.C.C. columns or masonry on sides. beams and flooring in bottom. including cutting, chistling and making good with cement mortar to match the surface; all the frames throughly cleaned free from rust, scale, or dirt including cost of materials, fixtures, labour and HOM of machinery complete as per specifications. section anodized to 12-15 micronsP.NO.37.I.NO.7.17.1										
			1.00	6.00	2.40		3.00	43.20			
	Basic	6,221.00						43.20	sqm	6718.68	**290,246.98**

SL. NO	DESCRIPTION OF WORKS		DIMENSIONS				QUANTITY	UNIT	RATE	AMOUNT
			NO		L	B	D				
	add 8% Area weightage	497.68								
	Total	6,718.68								
15	KSRB 7.11 : Providing and fixing in position aluminium windows and ventilators as per approved drawings with sliding shutters using three track window frame of size 92x31.75mm bottom section 1.3mm thick, weight 1.07kg/m; sides and top sections 1.3 mm, thick, weight 0.933 kg/m.shutter frame section comprising top and bottom section of size 40mmx18mm, wall thickness 1.25mm. weight 0.417 kg./m. shutter side outer 40mmx18mm. wall thickness 1.25mm. weight 0.417 kg/m, shutter interlock section 40mmx26.7mm wall thickness 1.1 mm. thick, weight 0.469 kg/m, the shutters mounted on nylon rollers with approved quality of fixtures such as aluminium handles tower bolts etc.; providing and fixing 5.5mm. thick plain glass for shutters fitted with rubber beading all aluminium sections including cutting to required length, joints mitred subdividing the frame tenonned and rivetted, in the assembled frame, stiffened with end clips for corners, angles etc., and fixed to the walls, lintels, floor beams/cills as the case may be, with necessary steel screws, raul plugs or teak wood gatties including cutting masonry or concrete and making good the original surface using cement mortar. using aluminium section powdered coated to a minimum of 60-70 microns with exterior durable pure polyester grade powder of approved quality. (P.No. 33, I.No. 7.11.2 of PWD SR 2016-17)									
			1.00	6.00	1.20	1.20		8.64	sqm		
	Basic	4,181.00						8.64	sqm	4515.48	**39,013.75**
	add 8% Area weightage	334.48									
	Total	4,515.48									
16	Providing flooring with 60 cms.x 60 cms. size Vitrified glazed tiles of approved quality & make, fixed on top of existing flooring fixed with suitable adhesive, including cutting the tiles to the required size and fixing etc., complete. P.NO.107.I.NO.14.44										
			1	6	4.57	3.66		100.36			
	skerting		1	6	16.46	0.15		14.81			
	Basic	1,069.00						115.17	sqm	1,154.52	**132,967.45**
	add 8% Area wt	85.52									
	Total	1,154.52									
17	KSRB 7.5 : Providing and fixing pull and push type rolling shutters of approved make out of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two numbers, mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & pull operations complete including pulling hooks, 4Nos. handles with all fittings and accessories, painted with a coat of red lead paint (without top cover) cost of materials, labour, HOM of machinery complete as per specifications. Shutter size 3mx2.8 m Specification No. KBS 7.10 / 7.12 P.NO.31.I.NO.7.5										
			1	6	2.40		3.00	43.20			
	Basic	2,862.00						43.20	sqm	3,033.72	**131,056.70**
	add 8% Area wt	171.72									
	Total	3,033.72									
18	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM of machinery complete as per specifications. Specification No. KBS 7.12. (P.No. 32, I.No. 7.9 of PWD SR 2015-16)										
	Windows		1	6	336.00			2,016.00	kg	82.68	**166,682.88**
	Basic	78.00									
	add 8% Area wt	4.68									
	Total	82.68									
19	Providing and laying flooring using prepolished, water cut/ gang saw 19mm thick granite laid over bed of 20mm thick CM 1:4 and jointed with neat cement slurry mixed with pigments to match shade of granite slabs including laying of POP on finished surface and claning the surface including cost of all meterials and labour etc, complete as per specifications.using solver grey granite/multy red/ruby red/black/Hassan green granite of width not less than 1200mm, mm.P.NO.107.I.NO.14.47.1										
	Thread		2	6	2.40	0.30		8.64			
	rise		3	6	2.40	0.15		6.48			
	Basic	2,619.00						15.12	sqm	2,828.52	**42,767.22**
	add 8% Area wt	209.52									
	Total	2,828.52									

SL. NO	DESCRIPTION OF WORKS		DIMENSIONS				QUANTITY	UNIT	RATE	AMOUNT
		NO		L	B	D				
20	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications, with primer .P.NO.117.I.NO.15.53.2									
	Plastering qty.vide item no9						304.18	sqm	90.72	**27,595.28**
	Basic	84.00								
	add 8% Area wt	6.72								
	Total	90.72								
21	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - with primer. (P. No. 116, I.No. 15.51.2 of SR 2015-16).									
	Internal Painting									
	Plastering qty.vide item no9						304.18	sqm	97.20	**29,566.37**
	Basic	90.00								
	add 8% Area wt	7.20								
	Total	97.20								
22	KSRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications.P.NO.120.I.NO15.74									
	For Roof supporting structure									
		1.00	6.00	4.57	3.66		100.39			
	rolling shutter	2.00	6.00	2.40		3.00	86.40			
	Window Grills	1.00	6.00	1.20		1.20	8.64			
	Basic	82.00					195.43	sqm	88.56	**17,306.99**
	add 8% Area wt	6.56								
	Total	88.56								
23	Conveying the excavated earth by private vehicle up to 15KMS including lead and lift loading unloading etc., complete.									
	qty.vide item no 1,						68.64	cum	100.60	**6,905.59**
24	Supplying water storage tanks made of virgin polymer (LLDPE) with two layers outer Black or Blue and inner White layer of approved quality and make, conforming to I.S.I./ISO/SSI specifications. P.NO.258.I.NO.37.58									
		1.00	6.00	2000.00			12000.00			
	Basic	6.00					12000.00	litre	6.48	**77,760.00**
	add 8% Area wt	0.48								
	Total	6.48								
25	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete. (Concealed work including cutting chases and good the walls etc.)25MM DIA P.NO.96.I.NO.13.86.3									
		1.00	6.00	50.00			300.00			
	Basic	250.00					300.00	M	270.00	**81,000.00**
	add 8% Area wt	20.00								
	Total	270.00								
26	KSRB13-6.3-3 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 25mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.6 / 13.3 P.NO.91.I.NO.13.34									
		6.00	3.00				18.00			
	Basic	600.00					18.00	each	648.00	**11,664.00**
	add 8% Area wt	48.00								
	Total	648.00								
				R.O.Plant						

SL NO	DESCRIPTION OF WORKS	NO		DIMENSIONS L	B	D	QUANTITY	UNIT	RATE	AMOUNT
27	SKID SS 202, PUMP CRI1HP, VESSEL-1354 PENTAIR, PRESSURE GAZE 10KGS NORMAL, MPV-1"NB FRONT FACE FILTER, HOUSING 20"JUMBO-1", SPUN 20 JUMBO, PUMP CRI 2 -180-3, PT-8040 FRP PANTHER, MEMBRANE DOW 8040, CONTROLL PANNEL 1X3 (SUPER), ROTAMETER 120-1680 ACRYLIC, ROTAMETER 400-2000 ACRYLIC, PRESSURE GAZE GLYSERINE - 21KG PANTHER, BRINE CON VALVE 3/4, ACRYLIC SHEET, LPS DENFOS, HPS DENFOS, DOSINGPUMP DOSE, SAND, CHEEPS, ACTIVATED CARBON INDUSTRIAL, ANTI DOSING CHEMICAL, HANDLE VALVE, ASSEMBLING AND COMMISSIONING, TANK SS304 1000LTR INCLUSIVE OF AUTOMATED COIN MACHINE						6.00	nos	600000.00	**3,600,000.00**
				ELECTRIFICATION WORKS						
28	*Open conduit System: Supplying heavy gauge PVC conduit pipe .....dia confirming to IS 2509 with suitable size bends, plugs in case of RCC ceiling and RCC wall stone structure or rawl plugs in case of brick walls and cement plastering damaged portion using heavy gauge saddles at an interval of 700mm using WF screws.a) 19/25 mm dia 2mm thick chaper -1 P.NO 2 I.NO.1.1.1*									
		1	6	50			300.00	mts	54.00	**16,200.00**
29	*Supplying and flush mounting teak wooden box without front plank, made of not less than 15mm thick wood, after due groove cutting, necessary masonry patch work complete. d)8"x6"x3"(203x152x76mm) chaper-1 P.NO.44.I.NO 6.6.1*									
		4	6				24.00	each	72.00	**1,728.00**
30	*Point wiring using copper wire with switch Supplying and wiring adopting loop system in existing PVC Conduit/casing caping using Copper PVC insulated multi strand 2x1.5Sqmm copper wire with a 6Amps flush type SP control switch shall be fixied on the exisiting plastic sheet /gang box, the pther end of the wires shall be terminated with sufficient loose length in a wood/PVC round block.complete for each outlet. I. Point wiring using class A materials a) Short point upto 3Mtr from tapping point to out let via switch chaper-1 P.NO.5.I.NO 2.1.1*									
		1	6				6.00	each	174.00	**1,044.00**
31	*b) Medium point above 3Mtr upto 6Mtr from tapping pointr to out let viaswitch P.NO.5.I.NO 2.1.2*									
		1	6				6.00	each	245.00	**1,470.00**
32	*c)Long point above 6Mtr upto 10Mtr from tapping point to out let via switch P.NO.5.I.NO 2.1.3*									
		4	6				24.00	each	363.00	**8,712.00**
33	*Supplying 6A flush/projected type socket and a 6 amps flush/ projected type SP switch either surface/flush mounting in a exisiting gang box or in a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required. b) 6Amps 3/5 way chapter-1 p.no.15.i.no.3.1.1*									
		1	6				6.00	each	127.00	**762.00**
34	*Wiring for lighting/power circuit using one of FLRS PVC insulated 1100v grade, multis and CopperWITH LOW conductor single core cable in open or consealed system of wiring.I Group A Materials.a) 1.5 sqmm chapter no 1 p.no.6.i.no.2.5.1.*									
		1	6	80			480.00	m	13.00	**6,240.00**
35	*b)2.5Sqmm p.no.6.i.no.2.5.2*									
		1	6	30			180.00	m	18.60	**3,348.00**
36	*c)4 sqmm p.no.6.i.no.2.5.3*									
		1	6	160			960.00	m	29.20	**28,032.00**
37	*Supplying and fixing phylum brand hand plastic sheet 4mm thick with necessary niches for fixing switches, regulators etc., and fixing on exisiting wood or metal box using N.F.screws P.NO.17.I.NO.3.9*									
		1	6	1500			9,000	sqm	0.25	**2,250.00**
38	*Supplying and fixing pbbc bakelight stright or slant batton holderand wiring within 60v/230volts lamp group A chapter -2 p.no.20.i.no.4.2*									
		4	6				24.00	each	88.00	**2,112.00**
39	*Supply patti type tube light fittings of 4'-28 watts fluorescent tube fittings made out of Ms sheet ans stove enameled with low loss open construction copper wound ferromagnetic ballast starter ,locking type brass contact holders mounted on double fold type sheet base fully wired for use on 230 volts AC supply including t5 lamp p.no.20 i.no.4.6*									
		2	6				12.00	each	699.00	**8,388.00**
40	*Supply wall mountaing fan suitable to operate of single phase -230v A.C supply 400mm sweep a.group A chapter 3.p.no.78.i.no.9.4.2*									
		1	6				6.00	each	2,534.00	**15,204.00**

SL NO	DESCRIPTION OF WORKS	NO		DIMENSIONS L	B	D	QUANTITY	UNIT	RATE	AMOUNT
41	Supplying decorative horizontal type street light fluorocent fitting weather and water proof complete complete with energy saving electronoc ballast etc., locking type brass contact holders with one number of 4ft 40watt flourcent tube completely wired for use on 230/250volts 50cycles AC supply with opel reeded parspex cover of bottom complete fitting 1x4'-28watts chapter -3 p.no.21.i.no.4.10.1									
		1	6				6.00	each	1,866.00	**11,196.00**
42	FSUPPLING OF 2 PIN/4PIN 18W CFL LAMP p.no.30.i.no.4.38.18									
		2	6				12.00	each	120.00	**1,440.00**
43	Supply and fixing polished wood board made of not less than 15mm thick plank on both sides with plank made out of not more than 2 pices and fixing the same to the wall using tapered inverted woode plug screws etc., a) 20"x20"2.5" chapter p.no.44.i.no.6.6.6									
		2	6				12.00	each	302.00	**3,624.00**
44	Supplying and fixing of Procelain fuse channel with cut out on exisiting wooden/panel using necessary nuts, bolts and washers etc., complete.a) 32Amps champter 5 p.no.45.i.no.6.7.2									
		6	6				36.00	each	180.00	**6,480.00**
45	Supply of an load charge over switches 4poles 415v 50Hz A.C supply with AC23A duty a) up to 63amps Groups A chapter 5.p.no.45.i.no.6.11.1									
		1	6				6.00	each	4,892.00	**29,352.00**
46	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and C type curve indicator ON/OFF Energy cross 3 with short circuit breaking capacity of 10K and complete wiring as required. e)5-32amps TPN . Group A chapter 5 p.no.47.i.no.6.16.6									
	40-64amps TPN	1	6				6.00	each	1,936.00	**11,616.00**
47	5-32amps TPN p.no.47.i.no.6.16.5									
		3	6				18.00	each	1,547.00	**27,846.00**
48	Supplying fixing and wiring Electronic10 to 40 amps Three phase 4wire class -1 Accuracy energy meter Group A chapter 5 p.no.48.i.no.6.33									
		1	6				6.00	each	4,900.00	**29,400.00**
49	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proprotion of salt and charcoal 150mm alround the pipe to complete depth. the connection form the pipe to the conduit etc, is to be established through GI wire of size as oer ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and checknuts etc, the pipe shall have 16 through holes of 12mm dia.chapter 9.p.no.55.i.no.7.1									
		1	6	2.00			12.00	NO	2,727.00	**32,724.00**
50	Supplying and running of GI/Copper strips for grounding connections using necessary fixing material as required GI strip 25x3mm chapter 9 p.no.55.i.no 7.3.1									
		1	6	15.00			90.00	mtrs	77.00	**6,930.00**
51	Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanished, steel wire/steel tap armoured cable with PVC outer sheating 1.1 KV class.I. Class 'A' PVC Cable.d) 4 core 16 sqmm chapter 9.p.no.55.i.no.7.4.4									
		1	6	40.00			240.00	mtrs	140.40	**33,696.00**

SL. NO	DESCRIPTION OF WORKS	NO		DIMENSIONS L	B	D	QUANTITY	UNIT	RATE	AMOUNT
52	*Labour charges for lying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall /on pole as required. I. In existing trench/duct.a) 6 sqmm to 16 sqmm chapter 9.p.no.61.i.no.7.8.2a*									
		1	*6*	*30.00*			*180.00*	*mtrs*	*16.20*	***2,916.00***
53	*Digging of trench of 0.6 m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc.,complete. (SR KSRB I-7.9.1.1, P-62).a) In soil (ordinary)*									
		1	*6*	*30.00*			*180.00*	*MTS*	*117.00*	***21,060.00***
54	*Supplying and fixing of class A (medium duty) GI pipe of wall thick ness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class. a) 40mm chapter 9.p.no.62.i.no.7.12.1*									
		1	*6*	*2.00*			*12.00*	*mtrs*	*345.00*	***4,140.00***
55	*Supplying &fixing L.T.cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers ect.b) 16 Sqmm chapter 9.p.no.62.i.no.7.13.2*									
		1	*6*				*6.00*	*each*	*280.00*	***1,680.00***
56	*Providing BESCOM deposits excuding ESCOM 3 pahse energy meter (as per intimation letter from ESCOMS) for 10hp 3phase power supply under LT-5 tariff.*							*L.S*		***30,000.00***
							SUB TOTAL		***RS.***	***6656789.28***

CERTIFICATE :

1 The work spot has been inspected and the work is found necessary.

2 This estimate is prepared as per PWD SR 2018-19, PWD SR,Bangalore circle for year 2016-2017, PRED and BWSSB SR of Rural Engineering Department and Data Rates

3 The provisions were made in this estimate are necessary and adequate.

4 This works come under B.B.M.P. limits.

Assistant Engineer,
Yelahanka Project Division

Asst. Exec. Engineer,
Yelahanka Project Division

Executive Engineer,
Yelahanka Project Division

For RUDRAPRASAD CONSULTANTS

Partner. / s.

Technical Sanction
Accorded For Rs-800-00 Lakhs
Head of A/C.....
CER NO :.....20..... Dt:.7/5/19

TA1 CE (YNK)

BRUHAT BANGALORE MAHANAGARA PALIKE

BILL OF QUANTITIES

Name of work: Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
1	Geophysical investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc complete as per specifications and directions of the engineer incharge.	Each BW	69.00		
2	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,)0 to 50m complete as per specifications directions of the engineer incharge.	Rmtr	3450.00		
3	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 50 to 100m complete as per specifications anddirections of the Engineer incharge.	Rmtr	3450.00		
4	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 100 to 150m complete as per specifications and directions of the Engineer incharge.	Rmtr	3450.00		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
5	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 150 to 200m complete as per specifications and directions of the Engineer incharge.	Rmtr	3450.00		
6	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 200 to 250m complete as per specifications and Engineer incharge.	Rmtr	3450.00		
7	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 250 to 300m complete as per specifications and directions of the engineer incharge.	Rmtr	3450.00		
8	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 300to 350m complete as per specifications anddirections of the Engineer incharge.	Rmtr	3450.00		
9	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 350 to above complete as per specifications anddirections of the Engineer incharge.	Rmtr	3450.00		
10	Supplying of ISI Mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick black electric resistance continous welded midle steel tube material confirming to IS 1387/!993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) complete as per specifications and directions of the engineer incharge.	Rmtr	4140.00		
11	Providing and fixing 250mm dia PVC pipe and as per specification and directions complete as per specifications and directions of the engineer incharge.	Rmtr	690.00		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
12	175 mm dia M.S. Casing cap, complete as per specifications and directions of the engineer incharge.	Each	69.00		
13	M.S. Casing pipe collars 'C' Class complete as per specifications and directions of the engineer incharge.	Each	690.00		
14	Fabricating supplying and mounting MS box of 16 SWG suitable for floor / wall mounting, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enamelled metal paint etc,. complete box of 21600 sq cm, complete as per specifications and directions of the engineer incharge.	Sqm	1518000.00		
15	Labour charges for erection of new /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) complete as per specifications and directions of the engineer incharge.	Per length	3450.00		
16	Supplying and fixing of Porcelain fuse channel with cut out on existing wooden / panel using necessary nuts, bolts and washer etc., complete as per specifications and directions of the engineer incharge.	No.	207.00		
17	Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable (confirming to IS 1554) KPWD Electrical SR 14-15completeas per specifications and directions of the engineer incharge.	Mtr	2415.00		
18	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces KPWD Electrical SR 14-15 complete as per specifications and directions of the engineer incharge.	Mtr	2415.00		
19	Supplying and fixing Class-A GI Pipe on pole/ wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mmKPWD Electrical SR 14-15 complete as per specifications and directions of the engineer incharge.	Mtr	138.00		
20	Supplying and fixing wiring earth electrode for grounding conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit,/ the pit should be filled with equal proportion of salt and charocal 150 mm alround the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc,. the pipe shall have 16 through holes of 122mm dia ,KPWD Electrical SR 14-15 complete as per specifications and directions of the engineer incharge.	No's	69.00		
21	Supply and fixing LT cast iron pot heads suitable for 1.1 KV class 16 sqmmUG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc,KPWD Electrical SR 14-15 complete as per specifications and directions of the engineer incharge.	No's	69.00		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
22	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches, complete as per specifications and directions of the engineer incharge.	No's	69.00		
23	Cleaning of bore well inciuding yield tetsting of borewell elther using slow or fast rig for not more than 2 hours at the final depth with air compressor or suitable pumpas per specifications and directions of the engineer incharge.	each	10.00		
24	Borewell Clamp Set complete as per specifications and directions of the engineer incharge.	Set	69.00		
25	Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 17.50 HP 30 stage, 10 extra motorcompleteas per specifications and directions of the engineer incharge.	No	51.00		
26	Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 17.50 HP 30 stage 20HP 40 stagecomplete as per specifications and directions of the engineer incharge.	No	30.00		
27	Providing, laying & jointing GI pipes confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe B Class completeas per specifications and directions of the engineer incharge.	Rmtr	26465.00		
28	Supply and fixing Heavy Collar for GI Pipes 50MM, completeas per specifications and directions of the engineer incharge.	No's	3864.00		
29	Supplying of submersible pump cable 1X3X6..0 Sq.mm complete as per specifications and directions of the engineer incharge.	Mtr	55300.00		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
30	Supplying & delivery at site brand new / Essen / Lotus sunsines/Adarsh/ Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door , canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR),complete as peas per specifications and directions of the engineer incharge.	No.	74.00		
31	Supplying & delivery of brand 50mm Gate Valve. complete as per specifications and directions of the engineer	No's	69.00		
32	Supplying & delivery of brand 50mm Non Return Valve completeas per specifications and directions of the engineer	No's	69.00		
33	Supplying and fixing MCB, complete as per specifications and directions of the engineer incharge.	No's	69.00		
34	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clod complete as per specifications and Engineer incharge.	Cum	10929.60		
35	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6 kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete as per specifications and directions of the engineer incharge.	Mtr	24288.00		
36	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications and directions of the engineer incharge.	Cum	10929.60		
37	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications and directions of the engineer incharge.	cum	98.76		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
38	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications and directions of the engineer incharge.	cum	29.87		
39	KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in foundation cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications and directions of the engineer incharge.	cum	53.33		
40	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications and directions of the engineer incharge.	cum	26.67		
41	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications and directions of the engineer incharge.	cum	30.12		
42	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation,plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications and directions of the engineer incharge.	cum	15.05		
43	KSRB 4-6.7 :Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth including cost of all materials, labour completeas per specifications and directions of the engineer incharge.	cum	59.26		
44	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundationfor footing ,pedestals ,retaining walls ,retern walls , walls (any thickness) including attached plasters, columns, pillars, posts, struts, buttresses, bed blocks, anchor blocks, and plinth etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications and directions of the engineer incharge. .	cum	13.89		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
45	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications and directions of the engineer incharge.	m	1.03		
46	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications and directions of the engineer incharge.	sqm	252.34		
47	KSRB15-3.10 : Providing 20mm thick cement plaster in single coat with cement mortar 1:3, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and directions of engineer in charge.	sqm	504.68		
48	Fabricating, supplying and erecting M.S. TubularTruss of span upto 10m. The bottom and top member is provided with 50x50x6mm double equal angles, welded back to back and in between top and bottom line, in areas of mid section is provided with 50x50x6mm equal single angle for vertical and inclined members and at supporting ends 40x40x5mm single angle is provided. All the members are welded together with 6mm gusset plate as per Drawing. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate.The work includes cutting, straightening, placing in position of M.S angle and wleding wherever necessary, and applying one coat of red oxide primer coat to all themembers including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification and directions of engineer in charge.	sqm	2700.00		
49	PROVIDING TRAPEZOIDAL PROFILED SHEET Providing and installing of pre painted Galvolume iron Trapezoidal profiled sheet of approved make 1060 mm width (1000 mm cover width), 28-30 mm crest height with crest distance of 200 mm c/c with 2 ribs at the centre for stiffening. The total coated thickness (TCT) of the sheet will be 0.47 mm +/- 0.02 mm tolerance Zinc-Alu Alloy coating AZ150 gsm as per ASTM 1397/A755-550 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using self drilling/self tapping screws of 25 mm length, to be fixed over the existing purlins, rafters, channels and trusses.complete as per specifications and directions of the engineer incharge.	sqm	155.20		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
50	KSRB 7.17 : Providing, fabricating, assembling and fixing in position aluminium doors using following aluminium mat finish or glossy finish, outer frame plain section 101.6x44.45mm thickness 3.18mm, section weight 2.404 kg/m, door shutters vertical section 44.62x44.45mm thickness 3.18mm, section weight 1.505kg/m, top section 47.62x44.45mm thickness 3.00mm, section weight 1.426kg/m bottom section 114.3x44.45 thickness 3.18mm, section weight 2.646kg/m, door central section 49.91x44.45mm thickness 3.00mm, section weight 1.495 kg/m glazing clips 19x17.3x11mm thickness 0.9mm section weight 0.124kg/m; aluminium sections cut to length joint metred cornersgrinded, the shutters pivoted opening arrangement with heavy duty aluminium alloy automatic door closures floor mounted, providing and fixing standard approved accessories, such as aluminium handle for full width or length, tower bolts, lock, pivots: P.V.C. or rubber gasket with 5.5m. thick plain glass for top and bottom panel; aluminium sections treated for removal of any rust and prevention of further rust formation, and coated with greasy materials for non-adherance of mortars or any other sticky materials; the assembled frame fitted with the corner angles, strips and fitted with screws, rawl plugs or teakwood gutties to R.C.C. columns or masonry on sides. beams and flooring in bottom. including cutting, chistling and making good with cement mortar to match the surface; all the frames throughly cleaned free from rust, scale, or dirt including cost of materials, fixtures, labour and HOM of machinery complete as per specifications and directions of engineer in charge.	sqm	43.20		
51	KSRB 7.11 : Providing and fixing in position aluminium windows and ventilators as per approved drawings with sliding shutters using three track window frame of size 92x31.75mm bottom section 1.3mm thick, weight 1.07kg/m; sides and top sections 1.3 mm, thick, weight 0.933 kg/m.shutter frame section comprising top and bottom section of size 40mmx18mm, wall thickness 1.25mm	sqm	8.64		
52	Providing flooring with 60 cms.x 60 cms. size Vitrified glazed tiles of approved quality & make, fixed on top of existing flooring fixed with suitable adhesive, including cutting the tiles to the required size and fixing etc., complete.complete as per specifications and directions of the engineer incharge.	sqm	115.17		
53	KSRB 7.5 : Providing and fixing pull and push type rolling shutters of approved make out of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two numbers, mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & pull operations complete including pulling hooks, 4Nos. handles with all fittings and accessories, painted with a coat of red lead paint (without top cover) cost of materials, labour, HOM of machinery. Shutter size 3mx2.8 m complete as per specifications and Engineer incharge.	43.2	43.20		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
54	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM of machinery complete as per specifications.completeas per specifications and directions of the engineer incharge.	kg	2016.00		
55	Providing and laying flooring using prepolished, water cut/ gang saw 19mm thick granite laid over bed of 20mm thick CM 1:4 and jointed with neat cement slurry mixed with pigments to match shade of granite slabs including laying of POP on finished surface and claning the surface including cost of all meterials and labour etc, complete as per specifications.using solver grey granite/multy red/ruby red/black/Hassan green granite of width not less than 1200mm, complete as per specifications and directions of the engineer incharge.	sqm	15.12		
56	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications, with primer completeas per specifications and directions of the	sqm	304.18		
57	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - with primer completeas per specifications and directions of the engineer incharge.	sqm	304.18		
58	KSRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour,complete as per specifications and directions of the engineer incharge.	sqm	195.43		
59	Conveying the excavated earth by private vehicle up to 15KMS including lead and lift loading unloading etc., complete as per specifications and Engineer incharge.	cum	68.64		
60	Supplying water storage tanks made of virgin polymer (LLDPE) with two layers outer Black or Blue and inner White layer of approved quality and make, conforming to I.S.I./ISO/SSI complete as per specifications and directions of the engineer incharge.	litre	12000.00		
61	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete. (Concealed work including cutting chases and good the walls etc.)25MM DIA complete as per specifications and Engineer incharge.	M	300.00		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
62	KSRB13-6.3-3 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 25mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. 13.2.6 / 13.3 complete as per specifications and directions	each	18.00		
63	SKID SS 202, PUMP CRI1HP, VESSEL-1354 PENTAIR, PRESSURE GAZE 10KGS NORMAL, MPV-1"NB FRONT FACE FILTER, HOUSING 20"JUMBO-1", SPUN 20 JUMBO, PUMP CRI 2 -180-3, PT-8040 FRP PANTHER, MEMBRANE DOW 8040, CONTROLL PANNEL 1X3 (SUPER), ROTAMETER 120-1680 ACRYLIC, ROTAMETER 400-2000 ACRYLIC, PRESSURE GAZE GLYSERINE - 21KG PANTHER, BRINE CON VALVE 3/4, ACRYLIC SHEET, LPS DENFOS, HPS DENFOS, DOSINGPUMP DOSE, SAND, CHEEPS, ACTIVATED CARBON INDUSTRIAL, ANTI DOSING CHEMICAL, HANDLE VALVE, ASSEMBLING AND COMMISSIONING, TANK SS304 1000LTR INCLUSIVE OF AUTOMATED COIN MACHINE complete as per specifications and directions of the engineer incharge.	nos	6.00		
64	Open conduit System: Supplying heavy gauge PVC conduit pipe .....dia confirming to IS 2509 with suitable size bends, plugs in case of RCC ceiling and RCC wall stone structure or rawl plugs in case of brick walls and cement plastering damaged portion using heavy gauge saddles at an interval of 700mm using WF screws.a) 19/25 mm dia 2mm thickcomplete as per specifications and directions of the	mts	300.00		
65	Supplying and flush mounting teak wooden box without front plank, made of not less than 15mm thick wood, after due groove cutting, necessary masonry patch work complete. d)8"x6"x3"(203x152x76mm) completeas per specifications and directions of the engineer incharge.	each	24.00		
66	Point wiring using copper wire with switch Supplying and wiring adopting loop system in existing PVC Conduit/casing caping using Copper PVC insulated multi strand 2x1.5Sqmm copper wire with a 6Amps flush type SP control switch shall be fixied on the exisiting plastic sheet /gang box, the pther end of the wires shall be terminated with sufficient loose length in a wood/PVC round block.complete for each outlet. I. Point wiring using class A materials a) Short point upto 3Mtr from tapping point to out let via switch complete as per specifications and directions of the	each	6.00		
67	b) Medium point above 3Mtr upto 6Mtr from tapping pointr to out let viaswitch complete as per specifications and directions of the engineer incharge.	each	6.00		
68	c)Long point above 6Mtr upto 10Mtr from tapping point to out let via switch complete as per specifications and directions of the engineer incharge.	each	24.00		
69	Supplying 6A flush/projected type socket and a 6 amps flush/ projected type SP switch either surface/flush mounting in a exisiting gang box or in a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required. b) 6Amps 3/5 way complete aas per specifications and directions of the engineer incharge.	each	6.00		
70	Wiring for lighting/power circuit using one of FLRS PVC insulated 1100v grade, multis and CopperWITH LOW conductor single core cable in open or consealed system of wiring.I Group A Materials.a) 1.5 sqmm complete as per specifications and directions of the engineer incharge.	m	480.00		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
71	b)2.5Sqmm as per specifications and directions of the engineer incharge.	m	180.00		
72	c)4 sqmmas per specifications and directions of the engineer incharge.	m	960.00		
73	Supplying and fixing phylum brand hand plastic sheet 4mm thick with necessary niches for fixing switches, regulators etc., and fixing on exisiting wood or metal box using N.F.screws complete as per specifications and directions of the engineer incharge.	sqm	9000.00		
74	Supplying and fixing pbbc bakelight stright or slant batton holderand wiring within 60v/230volts lamp group A complete as per specifications and directions of the engineer incharge.	each	24.00		
75	Supply patti type tube light fittings of 4'-28 watts fluorescent tube fittings made out of Ms sheet ans stove enameled with low loss open construction copper wound ferromagnetic ballast starter ,locking type brass contact holders mounted on double fold type sheet base fully wired for use on 230 volts AC supply including t5 lamp completeas per specifications and directions of the engineer incharge.	each	12.00		
76	Supply wall mountaing fan suitable to operate of single phase -230v A.C supply 400mm sweep a.group A complete as per specifications and directions of the engineer incharge.	each	6.00		
77	Supplying decorative horizontal type street light fluorocent fitting weather and water proof complete complete with energy saving electronoc ballast etc., locking type brass contact holders with one number of 4ft 40watt flourcent tube completely wired for use on 230/250volts 50cycles AC supply with opel reeded parspex cover of bottom complete fitting 1x4'-28watts complete as per specifications and directions of the engineer incharge.	each	6.00		
78	FSUPPLING OF 2 PIN/4PIN 18W CFL LAMP complete as per specifications and directions of the engineer incharge.	each	12.00		
79	Supply and fixing polished wood board made of not less than 15mm thick plank on both sides with plank made out of not more than 2 pices and fixing the same to the wall using tapered inverted woode plug screws etc., a) 20"x20"2.5" 6complete as per specifications and directions of the engineer incharge.	each	12.00		
80	Supplying and fixing of Procelain fuse channel with cut out on exisiting wooden/panel using necessary nuts, bolts and washers etc., complete.a) 32Amps complete as per specifications and directions of the engineer incharge.	each	36.00		
81	Supply of an load charge over switches 4poles 415v 50Hz A.C supply with AC23A duty a) up to 63amps Groups A complete as per specifications and directions of the engineer incharge.	each	6.00		
82	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and C type curve indicator ON/OFF Energy cross 3 with short circuit breaking capacity of 10K and complete wiring as required. e)5-32amps TPN . Group A completeas per specifications and directions of the engineer incharge.	each	6.00		
83	5-32amps TPNcomplete as per specifications and directions of the engineer incharge.	each	18.00		

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
84	Supplying fixing and wiring Electronic10 to 40 amps Three phase 4wire class -1 Accuracy energy meter Group A complete as per specifications and directions of the engineer incharge.	each	6.00		
85	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proprotion of salt and charcoal 150mm alround the pipe to complete depth. the connection form the pipe to the conduit etc, is to be established through GI wire of size as oer ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and checknuts etc, the pipe shall have 16 through holes of 12mm dia.complete as per specifications and directions of the engineer incharge.	NO	12.00		
86	Supplying and running of GI/Copper strips for grounding connections using necessary fixing material as required GI strip 25x3mm completeas per specifications and directions of the engineer incharge.	m	90.00		
87	Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanished, steel wire/steel tap armoured cable with PVC outer sheating 1.1 KV class.I. Class 'A' PVC Cable.d) 4 core 16 sqmm chaptcomplete as per specifications and Engineer incharge.	m	240.00		
88	Labour charges for lying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall /on pole as required. I. In existing trench/duct.a) 6 sqmm to 16 sqmm completeas per specifications and directions of the engineer incharge.	m	180.00		
89	Digging of trench of 0.6 m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc.,complete.a) In soil (ordinary) completeas per specifications and directions of the engineer incharge.	m	180.00		
90	Supplying and fixing of class A (medium duty) GI pipe of wall thick ness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class. a) 40mm complete as per specifications and Engineer incharge.	m	12.00		
91	Supplying &fixing L.T.cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers ect.b) 16 Sqmm complete as per specifications and directions of the engineer incharge.	each	6.00		

Executive Engineer
Project Division, Yelahanka Zone
BBMP, Bangalore - 92

BRUHAT BANGALORE MAHANAGARA PALIKE

DRAFT TENDER SCHEDULE

Name of work: Drilling of Borewells and Providing RO Plants at Dwarakanagara, Palanahalli, Thirumenahalli and Srirampura in Ward No:05

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
1	Geophysical investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc complete as per specifications and directions of the engineer incharge.	Each BW	69.00	1938.46	Rupees One Thousand Nine Hundred Thirty Eight and Forty Six Paise Only
2	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,)0 to 50m complete as per specifications directions of the engineer incharge.	Rmtr	3450.00	315.18	Rupees Three Hundred Fifteen and Eighteen Paise Only
3	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 50 to 100m complete as per specifications and Engineer incharge.	Rmtr	3450.00	412.00	Rupees Four Hundred Twelve Only
4	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 100 to 150m complete as per specifications and directions of the Engineer incharge.	Rmtr	3450.00	458.35	Rupees Four Hundred Fifty Eight and Thirty Five Paise Only
5	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 150 to 200m complete as per specifications and directions of the Engineer incharge.	Rmtr	3450.00	484.10	Rupees Four Hundred Eighty Four and Ten Paise Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
6	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 200 to 250m complete as per specifications and Engineer incharge.	Rmtr	3450.00	560.32	Rupees Five Hundred Sixty and Thirty Two Paise Only
7	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 250 to 300m complete as per specifications and directions of the engineer incharge.	Rmtr	3450.00	600.49	Rupees Six Hundred and Forty Nine Paise Only
8	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 300to 350m complete as per specifications and Engineer incharge.	Rmtr	3450.00	622.00	Rupees Six Hundred Twenty Two Only
9	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) 350 to above complete as per specifications and Engineer incharge.	Rmtr	3450.00	677.74	Rupees Six Hundred Seventy Seven and Seventy Four Paise Only
10	Supplying of ISI Mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick black electric resistance continous welded midle steel tube material confirming to IS 1387/!993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) complete as per specifications and directions of the engineer incharge.	Rmtr	4140.00	1364.75	Rupees One Thousand Three Hundred Sixty Four and Seventy Five Paise Only
11	Providing and fixing 250mm dia PVC pipe and as per specification and directions complete as per specifications and directions of the engineer incharge.	Rmtr	690.00	1393.59	Rupees One Thousand Three Hundred Ninety Three and Fifty Nine
12	175 mm dia M.S. Casing cap, complete as per specifications and directions of the engineer incharge.	Each	69.00	103.00	Rupees One Hundred Three Only
13	M.S. Casing pipe collars 'C' Class complete as per specifications and directions of the engineer incharge.	Each	690.00	154.50	Rupees One Hundred Fifty Four and Fifty Paise Only
14	Fabricating supplying and mounting MS box of 16 SWG suitable for floor / wall mounting, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enamelled metal paint etc,. complete box of 21600 sq cm, complete as per specifications and directions of the engineer incharge.	Sqm	1518000.00	0.33	Thirty Three Paise Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
15	Labour charges for erection of new /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) complete as per specifications and directions of the engineer incharge.	Per length	3450.00	92.00	Rupees Ninety Two Only
16	Supplying and fixing of Porcelain fuse channel with cut out on existing wooden / panel using necessary nuts, bolts and washer etc., complete as per specifications and directions of the engineer incharge.	No.	207.00	234.00	Rupees Two Hundred Thirty Four Only
17	Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable (confirming to IS 1554) KPWD Electrical SR 14-15completeas per specifications and directions of the engineer incharge.	Mtr	2415.00	140.40	Rupees One Hundred Forty and Forty Paise Only
18	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces KPWD Electrical SR 14-15 complete as per specifications and directions of the engineer incharge.	Mtr	2415.00	117.00	Rupees One Hundred Seventeen Only
19	Supplying and fixing Class-A GI Pipe on pole/ wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mmKPWD Electrical SR 14-15 complete as per specifications and directions of the engineer incharge	Mtr	138.00	294.58	Rupees Two Hundred Ninety Four and Fifty Eight Paise Only
20	Supplying and fixing wiring earth electrode for grounding conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit,/ the pit should be filled with equal proportion of salt and charocal 150 mm alround the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc,. the pipe shall have 16 through holes of 122mm dia ,KPWD Electrical SR 14-15 complete as per specifications and directions of the engineer incharge.	No's	69.00	4317.00	Rupees Four Thousand Three Hundred Seventeen Only
21	Supply and fixing LT cast iron pot heads suitable for 1.1 KV class 16 sqmmUG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc,KPWD Electrical SR 14-15 complete as per specifications and directions of the engineer incharge.	No's	69.00	280.00	Rupees Two Hundred Eighty Only
22	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches, complete as per specifications and directions of the engineer incharge.	No's	69.00	302.00	Rupees Three Hundred Two Only
23	Cleaning of bore well inciuding yield tetsting of borewell either using slow or fast rig for not more than 2 hours at the final depth with air compressor or suitable pumpas per specifications and directions of the engineer incharge.	each	10.00	10128.00	Rupees Ten Thousand One Hundred Twenty Eight Only
24	Borewell Clamp Set complete as per specifications and directions of the engineer incharge.	Set	69.00	1800.00	Rupees One Thousand Eight Hundred Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
25	Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 17.50 HP 30 stage, 10 extra motorcompleteas per specifications and directions of the engineer incharge.	No	51.00	72126.00	Rupees Seventy Two Thousand One Hundred Twenty Six Only
26	Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 17.50 HP 30 stage 20HP 40 stagecomplete as per specifications and directions of the engineer incharge.	No	30.00	90595.00	Rupees Ninety Thousand Five Hundred Ninety Five Only
27	Providing, laying & jointing GI pipes confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe B Class completeas per specifications and directions of the engineer incharge.	Rmtr	26465.00	415.00	Rupees Four Hundred Fifteen Only
28	Supply and fixing Heavy Collar for GI Pipes 50MM, completeas per specifications and directions of the engineer incharge.	No's	3864.00	180.00	Rupees One Hundred Eighty Only
29	Supplying of submersible pump cable 1X3X6..0 Sq.mm complete as per specifications and directions of the engineer incharge.	Mtr	55300.00	144.00	Rupees One Hundred Forty Four Only
30	Supplying & delivery at site brand new / Essen / Lotus sunsines/Adarsh/ Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door , canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above Up to 20HP with star delta starter (MR),complete as peas per specifications and directions of the engineer incharge.	No.	74.00	21000.00	Rupees Twenty One Thousand Only
31	Supplying & delivery of brand 50mm Gate Valve. complete as per specifications and directions of the engineer incharge.	No's	69.00	1800.00	Rupees One Thousand Eight Hundred Only
32	Supplying & delivery of brand 50mm Non Return Valve completeas per specifications and directions of the engineer	No's	69.00	1800.00	Rupees One Thousand Eight Hundred Only
33	Supplying and fixing MCB, complete as per specifications and directions of the engineer incharge.	No's	69.00	900.00	Rupees Nine Hundred Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
34	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Ordinary soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clod complete as per specifications and Engineer incharge.	Cum	10929.60	316.94	Rupees Three Hundred Sixteen and Ninety Four Paise Only
35	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6 kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete as per specifications and directions of the engineer incharge.	Mtr	24288.00	394.32	Rupees Three Hundred Ninety Four and Thirty Two Paise Only
36	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications and directions of the engineer incharge.	Cum	10929.60	128.26	Rupees One Hundred Twenty Eight and Twenty Six Paise Only
37	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications and directions of the engineer incharge.	cum	98.76	305.64	Rupees Three Hundred Five and Sixty Four Paise Only
38	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications and directions of the engineer incharge.	cum	29.87	5449.68	Rupees Five Thousand Four Hundred Forty Nine and Sixty Eight Paise Only
39	KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in foundation cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications and directions of the engineer incharge.	cum	53.33	4521.96	Rupees Four Thousand Five Hundred Twenty One and Ninety Six Paise Only
40	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications and directions of the engineer incharge.	cum	26.67	5405.40	Rupees Five Thousand Four Hundred Five and Forty Paise Only
41	KSRB 2-4 : Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5 m. including cost of all labour complete as per specifications and directions of the engineer incharge.	cum	30.12	82.08	Rupees Eighty Two and Eight Paise Only
42	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates :@0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation,plinth and cills, including cost of all materials, labour, HOM of machinery, curing complete as per specifications and directions of the engineer incharge.	cum	15.05	5630.04	Rupees Five Thousand Six Hundred Thirty and Four Paise Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
43	KSRB 4-6.7 :Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for sides and soffits of beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth including cost of all materials, labour completeas per specifications and directions of the engineer incharge.	cum	59.26	276.48	Rupees Two Hundred Seventy Six and Forty Eight Paise Only
44	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundationfor footing ,pedestals ,retaining walls ,retern walls , walls (any thickness) including attached plasters, columns, pillars, posts, struts, buttresses, bed blocks, anchor blocks, and plinth etc., including cost of all materials, labour, HOM of machinery, curing, complete as per specifications and directions of the engineer incharge. .	cum	13.89	6491.88	Rupees Six Thousand Four Hundred Ninety One and Eighty Eight Paise Only
45	KSRB 4.9.2 : Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications and directions of the engineer incharge.	m	1.03	60534.00	Rupees Sixty Thousand Five Hundred Thirty Four Only
46	KSRB 5-11 : Providing and constructing load bearing wall with solid concrete blocks of size 400x200x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications and directions of the engineer incharge.	sqm	252.34	1011.96	Rupees One Thousand Eleven and Ninety Six Paise Only
47	KSRB15-3.10 : Providing 20mm thick cement plaster in single coat with cement mortar 1:3, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications and directions of engineer in charge.	sqm	504.68	224.64	Rupees Two Hundred Twenty Four and Sixty Four Paise Only
48	Fabricating, supplying and erecting M.S. TubularTruss of span upto 10m. The bottom and top member is provided with 50x50x6mm double equal angles, welded back to back and in between top and bottom line, in areas of mid section is provided with 50x50x6mm equal single angle for vertical and inclined members and at supporting ends 40x40x5mm single angle is provided. All the members are welded together with 6mm gusset plate as per Drawing. The entire truss is anchored in RCC column by using 4 Nos. of M.S. anchor bolts at each support, with 10mm thick base plate and shoe plate.The work includes cutting, straightening, placing in position of M.S angle and wleding wherever necessary, and applying one coat of red oxide primer coat to all themembers including cost of all materials, labour charges, and hire charges of machineries for cutting, welding, grinding and erection equipments, with all lead and lift, transportation, etc., complete as per specification and directions of engineer in charge.	sqm	2700.00	118.80	Rupees One Hundred Eighteen and Eighty Paise Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
49	PROVIDING TRAPEZOIDAL PROFILED SHEET Providing and installing of pre painted Galvolume iron Trapezoidal profiled sheet of approved make 1060 mm width (1000 mm cover width), 28-30 mm crest height with crest distance of 200 mm c/c with 2 ribs at the centre for stiffening. The total coated thickness (TCT) of the sheet will be 0.47 mm +/- 0.02 mm tolerance Zinc-Alu Alloy coating AZ150 gsm as per ASTM 1397/A755-550 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 20-22 microns using self drilling/self tapping screws of 25 mm length, to be fixed over the existing purlins, rafters, channels and trusses.complete as per specifications and directions of the engineer incharge.	sqm	155.20	831.60	Rupees Eight Hundred Thirty One and Sixty Paise Only
50	KSRB 7.17 : Providing, fabricating, assembling and fixing in position aluminium doors using following aluminium mat finish or glossy finish, outer frame plain section 101.6x44.45mm thickness 3.18mm, section weight 2.404 kg/m, door shutters vertical section 44.62x44.45mm thickness 3.18mm, section weight 1.505kg/m, top section 47.62x44.45mm thickness 3.00mm, section weight 1.426kg/m bottom section 114.3x44.45 thickness 3.18mm, section weight 2.646kg/m, door central section 49.91x44.45mm thickness 3.00mm, section weight 1.495 kg/m glazing clips 19x17.3x11mm thickness 0.9mm section weight 0.124kg/m; aluminium sections cut to length joint metred cornersgrinded, the shutters pivoted opening arrangement with heavy duty aluminium alloy automatic door closures floor mounted, providing and fixing standard approved accessories, such as aluminium handle for full width or length, tower bolts, lock, pivots: P.V.C. or rubber gasket with 5.5m. thick plain glass for top and bottom panel; aluminium sections treated for removal of any rust and prevention of further rust formation, and coated with greasy materials for non-adherance of mortars or any other sticky materials; the assembled frame fitted with the corner angles, strips and fitted with screws, rawl plugs or teakwood gutties to R.C.C. columns or masonry on sides. beams and flooring in bottom. including cutting, chistling and making good with cement mortar to match the surface; all the frames throughly cleaned free from rust, scale, or dirt including cost of materials, fixtures, labour and HOM of machinery complete as per specifications and directions of engineer in charge.	sqm	43.20	6718.68	Rupees Six Thousand Seven Hundred Eighteen and Sixty Eight Paise Only
51	KSRB 7.11 : Providing and fixing in position aluminium windows and ventilators as per approved drawings with sliding shutters using three track window frame of size 92x31.75mm bottom section 1.3mm thick, weight 1.07kg/m; sides and top sections 1.3 mm, thick, weight 0.933 kg/m.shutter frame section comprising top and bottom section of size 40mmx18mm, wall thickness 1.25mm. weight 0.417 kg./m. shutter side outer 40mmx18mm. wall thickness 1.25mm. weight 0.417 kg/m, shutter interlock section 40mmx26.7mm wall thickness 1.1 mm. thick, weight 0.469 kg/m, the shutters mounted on nylon rollers with approved quality of fixtures such as aluminium handles tower bolts etc.; providing and fixing 5.5mm. thick plain glass for shutters fitted with rubber beading all aluminium sections including cutting to required length, joints mitred subdividing the frame tenonned and rivetted, in the assembled frame, stiffened with end clips for corners, angles etc., and fixed to the walls, lintels, floor beams/cills as the case may be, with necessary steel screws, raul plugs or teak wood gatties including cutting masonry or concrete and making good the original surface using cement mortar. using aluminium section powdered coated to a minimum of 60-70 microns with exterior durable pure polyester grade powder of approved quality.complete as per specifications and Engineer incharge.	sqm	8.64	4515.48	Rupees Four Thousand Five Hundred Fifteen and Forty Eight Paise Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
52	Providing flooring with 60 cms.x 60 cms. size Vitrified glazed tiles of approved quality & make, fixed on top of existing flooring fixed with suitable adhesive, including cutting the tiles to the required size and fixing etc., complete.complete as per specifications and directions of the engineer incharge.	sqm	115.17	1154.52	Rupees One Thousand One Hundred Fifty Four and Fifty Two Paise Only
53	KSRB 7.5 : Providing and fixing pull and push type rolling shutters of approved make out of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two numbers, mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & pull operations complete including pulling hooks, 4Nos. handles with all fittings and accessories, painted with a coat of red lead paint (without top cover) cost of materials, labour, HOM of machinery. Shutter size 3mx2.8 m complete as per specifications and Engineer incharge.	43.2	43.20	3033.72	Rupees Three Thousand Thirty Three and Seventy Two Paise Only
54	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM of machinery complete as per specifications.completeas per specifications and directions of the engineer incharge.	kg	2016.00	82.68	Rupees Eighty Two and Sixty Eight Paise Only
55	Providing and laying flooring using prepolished, water cut/ gang saw 19mm thick granite laid over bed of 20mm thick CM 1:4 and jointed with neat cement slurry mixed with pigments to match shade of granite slabs including laying of POP on finished surface and claning the surface including cost of all meterials and labour etc, complete as per specifications.using solver grey granite/multy red/ruby red/black/Hassan green granite of width not less than 1200mm, complete as per specifications and directions of the engineer incharge.	sqm	15.12	2828.52	Rupees Two Thousand Eight Hundred Twenty Eight and Fifty Two Paise Only
56	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications, with primer completeas per specifications and directions of the engineer incharge.	sqm	304.18	90.72	Rupees Ninety and Seventy Two Paise Only
57	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - with primer completeas per specifications and directions of the engineer incharge.	sqm	304.18	97.20	Rupees Ninety Seven and Twenty Paise Only
58	KSRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour,complete as per specifications and directions of the engineer incharge.	sqm	195.43	88.56	Rupees Eighty Eight and Fifty Six Paise Only
59	Conveying the excavated earth by private vehicle up to 15KMS including lead and lift loading unloading etc., complete as per specifications and Engineer incharge.	cum	68.64	100.60	Rupees One Hundred and Sixty Paise Only
60	Supplying water storage tanks made of virgin polymer (LLDPE) with two layers outer Black or Blue and inner White layer of approved quality and make, conforming to I.S.I./ISO/SSI complete as per specifications and directions of the engineer incharge.	litre	12000.00	6.48	Rupees Six and Forty Eight Paise Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
61	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete. (Concealed work including cutting chases and good the walls etc.)25MM DIA complete as per specifications and Engineer incharge.	M	300.00	270.00	Rupees Two Hundred Seventy Only
62	KSRB13-6.3-3 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 25mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No. 13.2.6 / 13.3 complete as per specifications and directions of the engineer incharge.	each	18.00	648.00	Rupees Six Hundred Forty Eight Only
63	SKID SS 202, PUMP CRI1HP, VESSEL-1354 PENTAIR, PRESSURE GAZE 10KGS NORMAL, MPV-1"NB FRONT FACE FILTER, HOUSING 20"JUMBO-1", SPUN 20 JUMBO, PUMP CRI 2 -180-3, PT-8040 FRP PANTHER, MEMBRANE DOW 8040, CONTROLL PANNEL 1X3 (SUPER), ROTAMETER 120-1680 ACRYLIC, ROTAMETER 400-2000 ACRYLIC, PRESSURE GAZE GLYSERINE - 21KG PANTHER, BRINE CON VALVE 3/4, ACRYLIC SHEET, LPS DENFOS, HPS DENFOS, DOSINGPUMP DOSE, SAND, CHEEPS, ACTIVATED CARBON INDUSTRIAL, ANTI DOSING CHEMICAL, HANDLE VALVE, ASSEMBLING AND COMMISSIONING, TANK SS304 1000LTR INCLUSIVE OF AUTOMATED COIN MACHINE complete as per specifications and directions of the engineer incharge.	nos	6.00	600000.00	Rupees Six lakh Only
64	Open conduit System: Supplying heavy gauge PVC conduit pipe .....dia confirming to IS 2509 with suitable size bends, plugs in case of RCC ceiling and RCC wall stone structure or rawl plugs in case of brick walls and cement plastering damaged portion using heavy gauge saddles at an interval of 700mm using WF screws.a) 19/25 mm dia 2mm thickcomplete as per specifications and directions of the engineer incharge.	mts	300.00	54.00	Rupees Fifty Four Only
65	Supplying and flush mounting teak wooden box without front plank, made of not less than 15mm thick wood, after due groove cutting, necessary masonry patch work complete. d)8"x6"x3"(203x152x76mm) completeas per specifications and directions of the engineer incharge.	each	24.00	72.00	Rupees Seventy Two Only
66	Point wiring using copper wire with switch Supplying and wiring adopting loop system in existing PVC Conduit/casing caping using Copper PVC insulated multi strand 2x1.5Sqmm copper wire with a 6Amps flush type SP control switch shall be fixied on the exisiting plastic sheet /gang box, the pther end of the wires shall be terminated with sufficient loose length in a wood/PVC round block.complete for each outlet. I. Point wiring using class A materials a) Short point upto 3Mtr from tapping point to out let via switch complete as per specifications and directions of the engineer incharge.	each	6.00	174.00	Rupees One Hundred Seventy Four Only
67	b) Medium point above 3Mtr upto 6Mtr from tapping pointr to out let viaswitch complete as per specifications and directions of the engineer incharge.	each	6.00	245.00	Rupees Two Hundred Forty Five Only
68	c)Long point above 6Mtr upto 10Mtr from tapping point to out let via switch complete as per specifications and directions of the engineer incharge.	each	24.00	363.00	Rupees Three Hundred Sixty Three Only
69	Supplying 6A flush/projected type socket and a 6 amps flush/ projected type SP switch either surface/flush mounting in a exisiting gang box or in a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required. b) 6Amps 3/5 way complete aas per specifications and directions of the engineer incharge.	each	6.00	127.00	Rupees One Hundred Twenty Seven Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
70	Wiring for lighting/power circuit using one of FLRS PVC insulated 1100v grade, multis and CopperWITH LOW conductor single core cable in open or consealed system of wiring.I Group A Materials.a) 1.5 sqmm complete as per specifications and directions of the engineer incharge.	m	480.00	13.00	Rupees Thirteen Only
71	b)2.5Sqmm as per specifications and directions of the engineer incharge.	m	180.00	18.60	Rupees Eighteen and Sixty Paise Only
72	c)4 sqmmas per specifications and directions of the engineer incharge.	m	960.00	29.20	Rupees Twenty Nine and Twenty Paise Only
73	Supplying and fixing phylum brand hand plastic sheet 4mm thick with necessary niches for fixing switches, regulators etc., and fixing on exisiting wood or metal box using N.F.screws complete as per specifications and directions of the engineer incharge.	sqm	9000.00	0.25	Twenty Five Paise Only
74	Supplying and fixing pbbc bakelight stright or slant batton holderand wiring within 60v/230volts lamp group A complete as per specifications and directions of the engineer incharge.	each	24.00	88.00	Rupees Eighty Eight Only
75	Supply patti type tube light fittings of 4'-28 watts fluorescent tube fittings made out of Ms sheet ans stove enameled with low loss open construction copper wound ferromagnetic ballast starter ,locking type brass contact holders mounted on double fold type sheet base fully wired for use on 230 volts AC supply including t5 lamp completeas per specifications and directions of the engineer incharge.	each	12.00	699.00	Rupees Six Hundred Ninety Nine Only
76	Supply wall mountaing fan suitable to operate of single phase -230v A.C supply 400mm sweep a.group A complete as per specifications and directions of the engineer incharge.	each	6.00	2534.00	Rupees Two Thousand Five Hundred Thirty Four Only
77	Supplying decorative horizontal type street light fluorocent fitting weather and water proof complete complete with energy saving electronoc ballast etc., locking type brass contact holders with one number of 4ft 40watt flourcent tube completely wired for use on 230/250volts 50cycles AC supply with opel reeded parspex cover of bottom complete fitting 1x4'-28watts complete as per specifications and directions of the engineer incharge.	each	6.00	1866.00	Rupees One Thousand Eight Hundred Sixty Six Only
78	FSUPPLING OF 2 PIN/4PIN 18W CFL LAMP complete as per specifications and directions of the engineer incharge.	each	12.00	120.00	Rupees One Hundred Twenty Only
79	Supply and fixing polished wood board made of not less than 15mm thick plank on both sides with plank made out of not more than 2 pices and fixing the same to the wall using tapered inverted woode plug screws etc., a) 20"x20"2.5" 6complete as per specifications and directions of the engineer incharge.	each	12.00	302.00	Rupees Three Hundred Two Only

Sl. No.	Description	Unit	Quantity	Rates	
				In Figures	In Words
80	Supplying and fixing of Procelain fuse channel with cut out on exisiting wooden/panel using necessary nuts, bolts and washers etc., complete.a) 32Amps complete as per specifications and directions of the engineer incharge.	each	36.00	180.00	Rupees One Hundred Eighty Only
81	Supply of an load charge over switches 4poles 415v 50Hz A.C supply with AC23A duty a) up to 63amps Groups A complete as per specifications and directions of the engineer incharge.	each	6.00	4892.00	Rupees Four Thousand Eight Hundred Ninety Two Only
82	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and C type curve indicator ON/OFF Energy cross 3 with short circuit breaking capacity of 10K and complete wiring as required. e)5-32amps TPN . Group A completeas per specifications and directions of the engineer incharge.	each	6.00	1936.00	Rupees One Thousand Nine Hundred Thirty Six Only
83	5-32amps TPNcomplete as per specifications and directions of the engineer incharge.	each	18.00	1547.00	Rupees One Thousand Five Hundred Forty Seven Only
84	Supplying fixing and wiring Electronic10 to 40 amps Three phase 4wire class -1 Accuracy energy meter Group A complete as per specifications and directions of the engineer	each	6.00	4900.00	Rupees Four Thousand Nine Hundred Only
85	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proprotion of salt and charcoal 150mm alround the pipe to complete depth. the connection form the pipe to the conduit etc, is to be established through GI wire of size as oer ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and checknuts etc, the pipe shall have 16 through holes of 12mm dia.complete as per specifications and directions of the engineer incharge.	NO	12.00	2727.00	Rupees Two Thousand Seven Hundred Twenty Seven Only
86	Supplying and running of GI/Copper strips for grounding connections using necessary fixing material as required GI strip 25x3mm completeas per specifications and directions of the engineer incharge.	m	90.00	77.00	Rupees Seventy Seven Only
87	Supplying of LT UG cable having aluminium conductor PVC insulated, sheathed, galvanished, steel wire/steel tap armoured cable with PVC outer sheating 1.1 KV class.I. Class 'A' PVC Cable.d) 4 core 16 sqmm chaptcomplete as per specifications and Engineer incharge.	m	240.00	140.40	Rupees One Hundred Forty and Forty Paise Only
88	Labour charges for lying of 1.1 KV class UG cable when supplied agency in existing trench GI pipe / stoneware pipe / on wall /on pole as required. I. In existing trench/duct.a) 6 sqmm to 16 sqmm completeas per specifications and directions of the engineer incharge.	m	180.00	16.20	Rupees Sixteen and Twenty Paise Only
89	Digging of trench of 0.6 m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc.,complete.a) In soil (ordinary) completeas per specifications and directions of the engineer incharge.	m	180.00	117.00	Rupees One Hundred Seventeen Only
90	Supplying and fixing of class A (medium duty) GI pipe of wall thick ness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV class. a) 40mm complete as per specifications and Engineer incharge.	m	12.00	345.00	Rupees Three Hundred Forty Five Only
91	Supplying &fixing L.T.cast iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers ect.b) 16 Sqmm complete as per specifications and directions of the engineer incharge.	each	6.00	280.00	Rupees Two Hundred Eighty Only

"DTS Approved"

Executive Engineer
Project Division, Yelahanka Zone
BBMP, Bangalore - 92

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ಯಲಹಂಕ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ.

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
27	Providing and installing at site of work 63mm (0.662) PVC Pipes of 6 kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete (P.NO - 94, I.NO - 13.73.2, PWD SR 18-19)	Mtr							
			69	352.00			24288.00		
							24288.00	394.32	9577244.00
	Basic Rate	372.00							
	6% area weightage	22.32							
	Total	394.32							
28	Refilling available earth around pipe lines, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications (P.NO - 7, I.NO - 2.11, PWD SR 18-19)	Cum							
			69	352.00	0.60	0.75	10929.60		
							10929.60	128.26	1401830.00
	Basic Rate	121.00							
	6% area weightage	7.26							
	Total	128.26							
								Total of Other SR Items including GST Unit Rate	22975312.00
								Total of PWD SR 2018-19 Items	42571052.00
29	For 12% GST for Only PWD SR-2018-19 items								5108526.00
30	RO plant for 6 Nos Sub Estimate								6656789.28
31	Preparation of DPR (1%)								800000.00
32	PMC (1%)								800000.00
33	Miscellaneous and Bescom Deposits	L/S							1088320.72
								Total	80000000.00
									Rs. Eight Crore Only

CERTIFICATE :

1 The work spot has been inspected and the work is found necessary.

2 This estimate is prepared as per PWD SR 2018-19, PWD SR,Bangalore circle for year 2016-2017, PRED and BWSSB SR of Rural Engineering Department and Data Rates

4 The provisions were made in this estimate are necessary and adequate.

5 This works come under B.B.M.P. limits.

Assistant Engineer
Yelahanka Project Division

Assistant Executive Engineer
Yelahanka Project Division

Executive Engineer
Yelahanka Project Division
6/5/19

Administrative Approval
Accorded For Rs. 800.00 lakhs
Head of A/C.....
CER NO :.....19..... Dt:..02/07/2020

E.E. (Project) 2/7

Technical Sanction
Accorded For Rs. 800.00 lakhs
Head of A/C.....
CER NO :.....20..... Dt:..07.05.19

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